

Fact Sheet: Lead and home renovations



Lead and your health

Historically, lead was widely used because it was cheap and its properties enhanced certain products.

Exposure to lead is linked with harmful effects on many organs and bodily functions. People of all ages may be harmed by lead but the risks are greatest for pregnant women, infants and children. Factors which influence the symptoms and health effects include the age and health status of the person, the amount of lead, and the duration of exposure.

It is well established that elevated blood lead levels can have harmful effects including anaemia, kidney problems and neurological or developmental effects, particularly in children.

If you suspect that you or your family have been exposed to lead, visit your doctor for further advice. For more information regarding the health effects of lead please refer to the NHMRC Statement and Information Paper on the Health Effects of Lead at www.nhmrc.gov.au/health-topics/lead-blood-levels.

Sources of lead in houses

Paint containing lead was used in many Australian buildings prior to 1970, but those built more recently may also present a risk to your health. The amount of lead in paint has decreased significantly over the years – the older the paint the more likely it is to contain high levels of lead.

Year	Maximum limit of lead in paint
Before 1970	50%
1970–1992	1%
1992–1997	0.25%
1997–today	0.1%

Some industrial coatings and specialised paints used today contain lead. These products must be labelled if they contain more than 0.1% lead – so you need to read the label.

Another source of lead in houses is dust from the breakdown of lead paint, deposits of industrial pollution and fume from car exhaust fallout from a time when there were high lead levels in petrol. This dust can exist in ceilings, wall cavities, under floors and in old carpets.

Other sources of lead in and around houses include:

- land currently or previously used for industrial purposes
- contaminated soil around outside walls, fences, sheds and garages
- lead flashing around roofs, windows, doors and chimneys
- lead solder and paint on pipes, rainwater tanks and collection systems
- lead water pipes in very old houses and brass or bronze plumbing fittings
- PVC-coated electrical wire and other PVC products.

Lead and renovating

Lead paint is one of the greatest potential hazard facing renovators. Maintenance or renovation activity can disturb existing lead paint or dust in a house, or create new hazards (see diagram).

Activities that can cause lead hazards in and around the home include:

- preparation of old lead paint surfaces for new paint by dry-sanding or open-flame torches, which can create lead dust and fumes
- demolition of or work on walls, floors, ceilings or fittings, which can disturb lead dust
- replacement or maintenance of plumbing/pipes located in building cavities that contain lead-contaminated dust
- lead solder can create fumes and moving old lead-soldered pipes can break off solder and contaminate drinking water
- moving carpets contaminated with lead dust – always wet carpet before removal.

What you can do

Test pre-1997 houses for lead in paint, soil and dust before renovating.

Avoid creating new lead hazards by keeping renovation activities to a minimum. Hire a professional trained and qualified in lead-safe work to do your renovations.

If you decide to renovate yourself take full precautions

Find out where the sources of lead could be and how to deal with them safely.

Plan how to do the job, the work methods to use, measures needed to protect your family and neighbours and how to clean up and dispose of waste.

Take simple, sensible precautions

- Where practicable, pregnant women, children and pets should move out during renovations until after the clean-up.
- Wash hands and face before meals, and shower and change clothes when you finish work.

Potential sources of lead paint in houses



- Do not smoke or carry cigarettes in the work area.
- Wash hands and face before smoking to stop lead entering your mouth.
- Wash work clothes separately from other clothes using a phosphate detergent and rinse the washing machine afterwards.

Preparations

Outside: Lay plastic sheeting under the work area to protect your garden and children's play area from paint dust fallout. Close windows and doors. Inform your neighbours so they can protect themselves if dust blows their way.

Inside: Seal the work area off from the rest of the house and outside by covering floors, doors and windows with plastic and tape. Remove soft furnishings, curtains, carpets and other household items or cover them with plastic. If removing old carpet, spray the surface with water to keep dust down. Roll the carpet inwards, wrap it in plastic and tape it up.

Equipment and practices

- When repainting, wet-sanding and wet-scraping are the safest methods of preparing the surface. Do not use open-flame torches and heat guns as they create lead fumes. Some chemical strippers are dangerous so follow the manufacturer's instructions. Methylene chloride strippers should be avoided.
- Always wear an AS-1716-approved respirator fitted with P1 (dust) or P2 (dust and fumes) filters and coveralls. Simple paper masks may not fit well and do not protect against fine dust.
- During plumbing work, use lead-free solder and flush the pipes with water for five minutes afterwards.

Clean up

- Clean up after renovating before pregnant women, children or pets return to the property.
- **Do not** sweep or use your domestic vacuum cleaner. Wet-wash the entire work area with a phosphate detergent (e.g. liquid sugar soap) and then rinse with clean water. Rinse mops and cloths to avoid spreading contaminated debris.
- Dispose of waste in sealed heavy-duty plastic bags. Use a water spray bottle to wet down dust and debris on plastic sheeting before wrapping it up.
- **Do not** burn painted wood.

Where to get advice

For information on lead and the environment call the NSW EPA's Environment Line on 131 555 or visit the NSW EPA lead safety webpage: www.epa.nsw.gov.au/lead.

For further information and advice about protecting yourself from lead, testing for lead and removal services and guidelines for safe home renovation, call The LEAD Group on 1800 626 026 or (02) 9716 0014. Lead test kits are available from the Lead Group (www.leadsafeworld.com/shop) and most hardware stores.

Ask your doctor for information about blood tests and the effects of lead on your health.

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Every effort has been made to ensure that the information in this document is accurate at the time of publication. However, as appropriate, readers should obtain independent advice before making any decision based on this information.

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